

REMARKS

The Interview of February 15, 2005

Examiner Smalley and Primary Examiner Hylton are thanked for their courtesy in granting and conducting the interview of February 15, 2005. In that interview, the nature of the present invention and its advantages over the prior art were discussed. Further, the references cited by the Examiner were discussed in detail. Particularly, it was emphasized how the references lack sufficient motivation and suggestion to one of ordinary skill in the art to modify the prior art so as to arrive at the invention of each of independent claims 3 and 7.

As can be seen from the Interview Summary, forming a part of the record of this application, the Examiner agreed that the cited prior art does not provide motivation to move a biasing coil spring from adjacent a pivot pin connection to a bearing to a recess spaced from the bearing. In other words, agreement was reached that there was insufficient motivation from the prior art references so as to arrive at the invention of each of independent claims 3 and 7. It was agreed that Applicant would present a thorough discussion of the invention as well as the prior art references and the lack of motivation to one of ordinary skill in the art to modify the prior art so as to arrive at this claimed invention. This discussion is presented below.

The Advantages of the Present Invention over the Prior Art

The present inventor has recognized that in the prior art, as for example illustrated by Figs. 4 and 5, problems may arise from a coil spring, used to provide a bias to a door 1 toward the closed position on a panel 5 of a magnetic recording-and-reproducing device, by its being mounted to one of its pivot pins 2. It may sometimes happen that an excessively large or improper force is applied to the door, causing the pivot pin 2 to break. With the arrangement in the prior art, this can allow the spring to come off of the broken pivot pin. This is primarily a problem because the spring will jump into the inside of the device. This can result in a short-circuit or other damage to the inside of the device. Also, even when the device is initially assembled, it sometimes happens that the spring comes off of the pivot pins 2, making the assembly process troublesome.

The present inventor has resolved this problem by providing a recess in an upper longitudinal edge of the plate 1. It is notched inward and spaced apart from one of the opposite pivot pins 2, as seen in Fig. 1. Engagement pins 9A and 9B in the recess are in alignment with the pivot pin. The coiled spring 3 is mounted to these engagement pins in the recess. The opposite end extensions of the coil spring lie on the plate and on the inside of the front panel of the magnetic recording-and-reproducing device, respectively.

Thus, with the present invention, as perhaps best illustrated in Fig. 2, even if one of the pivot pins 2 is broken, due e.g. to an excessively large force to the plate 1, the coil spring 3 will not come off, and thus cannot cause the same trouble of falling into the inside of the magnetic recording-and-reproducing device. This will avoid short circuits and problems related thereto, and other damage to the device. It also makes assembly of the device less troublesome.

Further, by locating the coil spring along the axis of the pivot pins 2, the torque is allowed to be constant. Further, because the front of the front panel 5 extends downward above the top edge of the plate 1, the recess will not be seen in use.

Claims 3 and 7 Reflect the Above-Described Invention

Both independent claims 3 and 7 recite a rectangular plate having opposite pivot pins projecting in a longitudinal direction of the plate from opposite ends of the upper longitudinal edge of the plate so that they can be supported by counter bearings of the front panel of the device. Both claims 3 and 7 further recite a recess in the upper longitudinal edge that is notched inward and spaced apart from one of the opposite pivot pins. Both claims 3 and 7 further recite engagement pins in the recess in alignment with the one of the opposition pivot pins. Further, both claims 3 and 7 recite a coil spring that is mounted to the engagement pins in the recess. The primary distinction between claims 3 and 7 is that claim 7 recites a magnetic recording-and-reproducing device including a swing door, and claim 3 recites a swing door for such a device.

The rejections raised by the Examiner are all under 35 U.S.C. §103. Further, they are all based upon the prior art as described in the present application, i.e. Figs. 4 and 5 and the corresponding description. The Examiner modifies the prior art of the present application in

different combinations with other prior art references. Specifically, these include U.S. Patents to Sullivan, Vance, Frank in further view of Sullivan and Tamaki. However, the cited references do not provide sufficient motivation to one of ordinary skill in the art to modify the prior art of the present application so as to arrive at claims 3 and 7.

There is Insufficient Motivation in the Patents Cited to Modify the Prior Art

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference or references must teach or suggest all of the claim limitations. The teaching or suggestion to make the combination must be found in the prior art, not in Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ 2d 1438 (Fed. Cir. 1991). There must be something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. *Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick Co.*, 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984). It should be recognized that the fact that the prior art could be modified so as to result in the combination that is defined by the claims does not make the modification obvious unless the prior art itself suggests the desirability of the modification. *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986).

One essential problem with each of the Examiner's combinations of references is the fact that none of the references identifies a problem in the prior art of Figs. 4 and 5 to which the references suggest a solution. They are directed to quite divergent subject matter from swing doors for a magnetic recording-and-reproducing device.

In rejecting the claims over the prior art in view of Sullivan, the Examiner stated that it would have been obvious to modify the prior art VCR to provide the coil spring in a recess along the longitudinal edge of the cover as taught by Sullivan, being motivated by the benefit of "centrally-locating the hinge to avoid undue stress on the hinge." However, undue stress on the hinge is nowhere taught in the art as being a problem with the arrangement of Figs. 4 and 5.

Further, there does not appear to be any discussion of undue stress on hinges in Sullivan. The stated objects of Sullivan are to provide an improved eyeglasses case with a hinged base and cover sections of molded plastic. The “spring” aspect of the objects of Sullivan are directed to an improved spring actuated hinge construction for pivotally uniting the cover and the base sections in which the spring serves to automatically swing the cover section from its closed to its fully open position. However, none of the concerns of Sullivan appear to have any relationship to concerns or aspects known in the prior art of Figs. 4 and 5.

While it is recognized that the motivation for a combination rejection need not be the same as Applicant’s motivation in creating the invention, with respect to Sullivan, there is no motivation whatsoever that would suggest the specific limitations of claims 3 and 7. There is nothing to suggest any importance in relocating the coil spring 3 to a recess placed along the longitudinal edge and along the axis of the pivot pins.

In combining the patent to Vance with the prior art, the Examiner stated that Vance teaches in column 1, lines 8-10 the benefit that the spring “may be readily positioned and will not add materially to the cost or difficulty of construction.” However, this cited benefit of Vance is the provision of a coil spring in the first place. The prior art of Figs. 4 and 5 already has a coil spring. Thus the stated motivation for the combination would in fact not motivate one of ordinary skill in the art, because the prior art has already accomplished the provision of the spring.

Further, as the Examiner recognizes, Vance does not disclose a recess along the upper longitudinal edge of the plate notched inward and spaced apart from one of opposite pivot pins. Rather, the spring of Vance is located in the frame of the spring door locker. Even if one were to combine Vance with the prior art of Figs. 4 and 5, this would not result in the location of the spring along the upper longitudinal edge of the plate.

The Examiner considered it obvious to locate the spring on the door because it has been held that a mere reversal of essential working parts of a device involves only routine skill in the art. However, the location of the recess for the spring in the present invention, as reflected by claims 3 and 7, is not a mere reversal of parts. If the spring was not located on the upper longitudinal edge of the plate on the engagement pins in alignment with the pivot pins, the bias

characteristics would be changed, and the torque would not remain constant. Further, a recess located in the plate would be readily observable from outside of the magnetic recording-and-reproducing device, which would be undesirable. As such, the particular location as claimed, along the upper longitudinal edge of the plate, provides distinct benefits and advantages, in the context of the present invention, not recognized by Vance. Thus, this location is not a mere reversal of parts, but is a reflection of a functional distinction providing further benefits and advantages.

Further, Vance does not, as such, recognize any deficiency with the arrangement of prior art Figs. 4 and 5. It is only the present inventor that has recognized the problem associated with the location of the coil spring 3 in prior art Figs. 4 and 5. Vance is directed to the provision of biasing springs for a door locker. It does not address and is not concerned with the problems that may be present in an already-biased pivoting plate for a magnetic recording-and-reproducing device.

The Examiner further cited the U.S. Patent to Frank as teaching a door having coil spring located in a recess, but not engagement pins. This was further combined with Sullivan for the proposition of the coil spring being located on engagement pins. The motivation cited here is again the benefit of centrally-locating the hinge to avoid undue stress on the hinge. However, this is not a problem recognized with the prior art of Figs. 4 and 5, and is in fact not taught by either Frank or Sullivan. This has been addressed above.

Frank itself, it is noted, is directed to a weather proof outlet cover. The cover has a spring located in a recess, perhaps as best seen in Fig. 4. The spring biases the cover toward its closed position.

However, Frank is devoid of any teaching that one of ordinary skill in the art might be motivated by to modify the prior art of Figs. 4 and 5. The prior art of Figs. 4 and 5 already has a spring for the purpose of biasing the plate 1 toward the closed position. It is not seen what Frank adds to this. The stated motivation of centrally-locating the hinge (spring?) to avoid undue stress is unsupported by Frank. Further, Frank does not centrally locate the spring and is not concerned with stress on the hinge.

Further, regarding the Examiner's comment regarding the change of the location of the coil hinge, the following is noted. The location of the coil spring in the present invention is not a mere rearrangement of parts. The spring is provided at a distinctly different point, in a recess, on engagement pins, to avoid the problem of the spring possibly falling off of the pivot pin 2 if the pivot pin is broken. Thus, the present invention does not represent a mere rearrangement in parts or location.

The cited patent to Tamaki is directed to a door handle device. A coil spring 33 is located on engagement pins 222. The spring 3 is provided between a case 2 and handle body 1 to provide a returning force to the handle body 1 so that the handle body 1 will be returned into the case.

Again, Tamaki teaches a spring for the purpose of biasing a handle to one position. But the prior art of Figs. 4 and 5 already has a spring. There is no additional motivation provided to one of ordinary skill in the art to make any further modification of Figs. 4 and 5. There is no improvement taught by Tamaki. It is directed to a distinctly different type of device which does not address the problems of a swing door for a magnetic-and-reproducing device. While the spring 3 is located on the mounting pins 222, 222' in Tamaki, this does not provide motivation to one of skill in the art in looking at Figs. 4 and 5. There is nothing to suggest any deficiency with respect to Figs. 4 and 5. There is thus no reason why one of ordinary skill in the art would modify the arrangement of Figs. 4 and 5 to any other arrangement.

It is only the present inventor who has recognized the distinct reason for modifying this arrangement. The prior art has not identified any reason for making any such modification. The prior art is thus, essentially, devoid of any motivation for one of ordinary skill in the art to change the prior art.

Accordingly, it is respectfully submitted that the present invention as set forth in all of claims 3-10 clearly patentably distinguishes over all of the prior art cited by the Examiner. Withdrawal of the final Office Action and allowance of the application as a whole is, accordingly, requested.

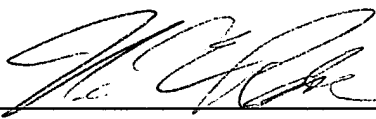
Amendment

Claim 10 has been corrected by the above amendment in order to correctly refer to claim 7.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance, and the Examiner is requested to pass the case to issue. If the Examiner should have any comments or suggestions to help speed the prosecution of this application, the Examiner is requested to contact Applicant's undersigned representative.

Respectfully submitted,

Naoto YANAGIHARA

By: 

Nils E. Pedersen
Registration No. 33,145
Attorney for Applicant

NEP/ck/krq
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
March 1, 2005